

中国苦苣苔科的研究*

王文采

(中国科学院北京植物研究所)

NOTULAE DE GESNERIACEIS SINENSIBUS*

Wang Wen-tsai

(Institutum Botanicum Pekinense Academiae Sinicae)

[Translated by Hayden M. Wetzel (1514 Seventeenth Street N.W., #108, Washington, DC 20036) and Laurence E. Skog (Department of Botany, Smithsonian Institution, Washington, DC 20560), from the Chinese originally published in Acta Phytotaxonomica Sinica 13(2): 62-70, 1975. This translation was done with the kind permission of the author; publication was made possible by a generous gift from Mrs. Bea Gold, Miami Beach, FL, and by the Elvin McDonald Research Fund of the American Gloxinia and Gesneriad Society, Inc.

[This is the second of two translations of articles by Wang Wen-ts'ai describing Chinese Gesneriaceae. "Taxa Nova Gesneriacearum e Flora Tibetica" (Acta Phytotaxonomica Sinica 17(1): 110-111, 1979) appeared in Phytologia 45(1): 31-34, 1980. The present article will be published in two parts, as it appeared in the original; the illustrations will be included in the second part.

[The Wade-Giles system of transliteration has been used throughout. The author's name is properly spelled Wang Wen-ts'ai; future publications from China will use the pinyin system of Romanization, in which the name will be written Wang Wencai. Corrections and additions have been made in starred footnotes or brackets.]

In recent years the writer, in preparing the section on the family Gesneriaceae for the "Icono-

* This article includes photographs by Comrades Chu P'ei-chun and Kao Kuei-chen. The photographs will appear in the next issue. [In original]

graphia Cormophytorum Sinicorum", organized our specimens of this family, and proposed several new taxa and combinations, which are given in this article. All of the specimens cited in this article are contained in our herbarium [PE].

THE SHARP-HAIRED GESNERIAD GENUS --
Aeschynanthus Jack

THE LINEAR-LEAVED AESCHYNANTHUS -- A. linearifolius

Aeschynanthus linearifolia* C. E. C. Fisch. in Kew Bull. 1928: 321 (1928)**.

Tibet: Ch'a-yü, 2500 m above sea level, Ching-hai-Tibet Expedition 73-792.

Yunnan: Kung-shan, 2000-2800 m above sea level, Yü Teh-chün [Yü Te-tsun] 22061, Wang Ch'i-wu 67521.

Distributed in this country in SE Tibet, NW Yunnan; NE India. First recorded from this country.

This species has bracts and calyx (5 lobes divided nearly to the base) entirely red, and the seeds with one hair at each end and is close to A. bracteatus Wall. and the Broad and Long-leaved Aeschynanthus*** -- A. oblanceolatus (Anth.) C. E. C. Fisch. This species has leaves narrowly oblanceolate or elongate oblanceolate (5-7 cm long, 0.7-1.5 cm broad), easily distinguished from the ovate-leaved A. bracteatus. A. oblanceolatus has leaves oblanceolate, 2-2.8 cm broad, and is nearest to this species.

THE SOUTH-YUNNAN AESCHYNANTHUS -- Aeschynanthus austroyunnanensis (illustration will appear in next issue)

Small climbing shrub. Stem ca. 1 m long, glabrous, not divided or with a few short branches. Leaves opposite; leaf blades thinly coriaceous or rigidly chartaceous, elliptic or narrowly elliptic, 4-7.2 cm long, 2.2-3.9 cm broad, apex acute or somewhat obtuse, base broadly cuneate or cuneate

* Sic; linearifolius

** Sic; 1935.

*** Common name; see key.

rotund, margin entire, lateral veins 4-5 and opposite, obscure; petioles thick, 3-6 mm long. Flowers 1-2 borne from buds on reduced axillary branches; peduncles 4-8 mm long, sparsely puberulent; the calyx ca. 4 mm long, outside puberulent, 5 lobes divided to ca. 1 mm from the base, the lobes elongate lanceolate; corolla red, nearly tubular, 2.4-2.8 cm long, slightly curved near the apex, outside puberulent, inside glabrous, limb obscurely bilabiate, upper lip of 2 shallow lobes, lower lip of 3 shallow lobes, the lobes ovate, ca. 3 mm long; stamens 4, borne at the upper part of the corolla tube, slightly exerted, filaments puberulent; disc annular, glabrous, with shallow lobes; pistil slightly exerted from the corolla, style sparsely puberulent. Capsule nearly linear, 18.5-26 cm long, glabrous; seed narrowly oblong, ca. 0.8 mm long, with 1 long white hair at each end (hairs 12-15 mm long).

This species is allied to A. lineatus Craib (distributed in Thailand), but this species can be distinguished by the calyx lobes that are not divided to the base, the lobe apices acute, while the latter has calyx lobes divided to the base, the lobe apices somewhat obtuse.

Aeschynanthus austroyunnanensis W. T. Wang, sp. nov. [Acta Phytotax. Sin. 13(2): 63, 1975]

Affinis A. lineato Craib e descr., sed calyce non ad basin diviso, eius segmentis apice acutis differt.

Yunnan: Ching-hung, Nan-hsien River, 800 m above sea level, on stones by the side of the river, liana, flower red, October 1936, Wang Ch'i-wu 79443 (Holotypus!); I-wu, 880 m above sea level, in a forest, climbing liana, flower red, October 1936, Wang Ch'i-wu 80192.

THE HAIRY-FLOWERED AESCHYNANTHUS -- A. lasianthus (illustration will appear in next issue)

Small shrub. Stem 40-120 cm long, branched, glabrous, youngest branches with brown sericeous pubescence. Leaves opposite, glabrous; the leaf blades thin coriaceous, ovate, narrowly ovate or ovate lanceolate, 3.7-6.5 cm long, 1.5-2.9 cm broad, apex acuminate, base broadly cuneate, margin entire, veins obscure; the petioles 3.5-7 mm long. Flowers

1-2 from buds on extremely reduced axillary branches; peduncles 1-1.4 cm long, with dense brown sericeous pubescence; calyx campanulate, 1-1.8 cm long, outside with dense sericeous pubescence, 5 lobes divided slightly past the middle or near the base, the lobes elongate lanceolate; corolla red, tubular funnelform, slightly curved, 2.2-2.5 cm long, outside with sericeous puberulence, inside at the base and above sparsely puberulent, limb of 5 nearly equal lobes, the lobes deltate ovate, ca. 2.2 mm long, apex rotund; stamens 4, borne from the middle of the corolla tube, strongly exerted from the corolla, filaments' upper part sparsely pubescent, anthers coherent in pairs; disc nearly tubular, glabrous; pistil glabrous or nearly glabrous, style strongly exerted from the corolla. Capsule ca. 20 cm long.

This species is close to the aforementioned A. austroyunnanensis, but it differs by the leaves which are ovate, not elliptic, apex acuminate, and the calyx relatively much longer.

Aeschynanthus lasianthus W. T. Wang, sp. nov.
[Acta Phytotax. Sin. 13(2): 63, 1975]

Affinis A. austroyunnanensis W. T. Wang, sed foliis ovatis apice acuminatis, calyce multo longiore differt.

Yunnan: Kung-shan, Pei-hai-lo, 2300-2600 m above sea level, herb, 5 m long, on rocky cliffs at the side of a stream, flower red, 1 September 1940, Feng Kuo-mei 7282 (Holotypus!); same place, Kao-li Kung-shan, 1800 m above sea level, in a tree at the edge of a forest, epiphytic shrub, 1 ft long, flower red, 27 August 1937, Yü Teh-chün [Yü Te-tsun] 19973.

THE NARROWLY-OBLONG-LEAVED AESCHYNANTHUS -- A. angustioblongus (illustration will appear in next issue)

Epiphytic small shrub. Stem 12-30 cm long, glabrous, frequently with long branches. Leaves opposite, glabrous; leaf blades rigidly chartaceous, narrowly oblong, oblong lanceolate or narrowly elliptic, (1.8-)3-5.4 cm long, (0.8-)1-1.5 cm broad, two ends gradually narrowing, apex somewhat obtuse, margin entire; the petioles 2-5 mm long. Flowers frequently simple axillary; peduncles 1-2.2 cm long, glabrous; the calyx 9-11 mm long, 5 lobes divided to

the base, the lobes linear lanceolate, 1.6-2.1 mm broad, apex somewhat obtuse, with sparse short marginal hairs, corolla red, nearly tubular, slightly curved, 2.8-3 cm long, outside puberulent, inside glabrous, limb suberect, of 5 nearly equal lobes, the lobes ovate, ca. 2 mm long, apices rotund; stamens 4, borne at above the middle of the corolla tube, exerted, filaments puberulent; disc annular, glabrous, margin denticulate; pistil slightly exerted, style puberulent.

This species is close to A. lineatus Craib endemic to Thailand, but this species can be distinguished by the leaves that are narrowly oblong, to 1.5 cm broad, calyx lobe apices acute, while the latter has leaves lanceolate or oblanceolate, or sometimes oblong, 1.7-3.3 cm broad, calyx lobe apices somewhat obtuse. This species is also close to A. lasianthus (see above), but it can be distinguished by the leaves that are narrowly oblong, relatively smaller, and the calyx with marginal hairs only at lobe apex.

Aeschynanthus angustiolongus W. T. Wang, sp. nov. [Acta Phytotax. Sin. 13(2): 64, 1975]

Affinis A. lineato Craib e descr., sed foliis anguste oblongis ad 1.5 cm latis, calycis segmentis apice acutis differt; ab A. lasiantho W. T. Wang foliorum forma latitudineque, calyce segmentis apice tantum ciliatis exceptis glabro distinctus.

Yunnan: Kung-shan, Ch'iu Chiang River valley, 1500 m above sea level, shrub epiphytic on a tree trunk, flower red, 25 September 1938, Yü Teh-chün [Yü Te-tsun] 20424 (Holotypus!).

THE LONG-ACUMINATE AESCHYNANTHUS -- A. acuminatissimus

Small epiphytic climbing shrub. Stem branched, glabrous. Leaves opposite, glabrous; leaf blades thin coriaceous, lanceolate, 5.8-7.4 cm long, 1.4-2.5 cm broad, the apices long acuminate or nearly caudate, tip sometimes falcate curved, base obtuse or slightly rotund, margin entire, veins obscure, abaxial side densely covered by light brown spots; petioles 3-4 mm long. Flowers single and axillary; the peduncles ca. 1 cm long,* glabrous; calyx cam-

*Sic; differs from corresponding Latin description.

panulate, ca. 7.5 mm long, glabrous, 5 lobes divided to the base, the lobes lanceolate subulate, ca. 0.8 mm broad, with 1 vein; the corolla red, funnellform tubular, slightly curved, ca. 2.8 cm long, outside glabrous, tube ca. 2.2 cm long, limb obscurely bilabiate, of 5 nearly equal lobes, the lobes ovate, inside puberulent, ca. 6 mm long; the stamens 4, borne above the middle of the corolla tube, elongate to the corolla mouth, filaments sparsely puberulent, anthers ca. 2 mm long; disc annular, glabrous; the pistil glabrous, as long as the corolla, stigma depressed orbicular.

This species is allied to A. tenuis Hand.-Mazz., but it can be distinguished by having leaves relatively large, leaf blades 5.8-7.4 cm long, apices long acuminate, rarely nearly caudate, abaxial side densely covered with small, light brown spots, flowers simple and axillary, without peduncles; A. tenuis has leaves 3-5.5 cm long, apices caudate, without spots, inflorescences of 1-2 flowers, with peduncles.

Aeschynanthus acuminatissimus W. T. Wang, sp. nov. [Acta Phytotax. Sin. 13(2): 64, 1975]

Affinis A. tenui Hand.-Mazz., sed foliis majoribus apice longe acuminatis raro subcaudatis subtus sub lente dense brunneolo-punctatis, flore singulari axillari, pedunculo nullo* differt.

Yunnan: Hsi-ch'ou, Fa-t'ou, Shui-ching-shih Creek, 1500 m above sea level, in an immature rain forest, liana borne on a tree trunk, flower red, slightly labiate, 4 August 1964, Chang Chih-yu 46 (Holotypus!).

THE LANCEOLATE-LEAVED AESCHYNANTHUS -- A. lanci-
limbus

Small shrub. Stem glabrous, with long branches. Leaves opposite, glabrous; the leaf blades coriaceous or rigidly chartaceous, lanceolate, rarely ovate, 4-6.3 cm long, 1.4-2.5 cm broad, apices long* acuminate or acuminate, base obtuse or nearly rotund, margin entire, veins obscure; the petioles 3-6 mm long. Flowers axillary (?); peduncles ca.

*Sic; differs from the corresponding Latin/Chinese description.

1.3 cm long, glabrous; the calyx campanulate, ca. 7 mm long, glabrous, 5 lobes divided to ca. 2 mm from the base, the lobes elongate lanceolate, 1-1.5 mm broad; the corolla red, funnelform tubular, slightly curved near the apex, ca. 2.7 cm long, outside slightly puberulent, inside glabrous, the limb sub-erect, of 5 nearly equal lobes, the lobes elliptic ovate, ca. 2 mm long; stamens 4, borne from the upper part of the corolla tube, strongly exserted from from the corolla, glabrous, anthers coherent in pairs, narrowly oblong, ca. 2.5 mm long; disc annular, glabrous; pistil glabrous.

This species is close to A. acuminatissimus (see above), but it can be distinguished by the leaf apices short acuminate, calyx lobes not divided to the base, and corolla exterior puberulent.

Aeschynanthus lancilimbus W. T. Wang, sp. nov.
[Acta Phytotax. Sin. 13(2): 64, 1975]

Affinis A. acuminatissimo W. T. Wang, sed foliis apice brevius* acuminatis, calyce non ad basin diviso, corolla extus puberula differt.

Yunnan: Yen-shan, 1200 m above sea level. in a mountain ravine, in a dense forest, flower red, 27 October 1939, Wang Ch'i-wu 84791 (Holotypus!).

THE SLENDER AESCHYNANTHUS -- A. novogracilis

Aeschynanthus novogracilis W. T. Wang, nom. nov.
[Acta Phytotax. Sin. 13(2): 65, 1975]**

A. gracilis Parish ex Clarke, Comm. et Cyrt. Beng. t. 48, fig. infer. (1874); in DC. Monogr. Phan. 5: 27 (1883); in Hook. f. Fl. Brit. Ind. 4: 340 (1884); Hara, Fl. East. Himal. 297 (1966), non Hort. ex Hanst. (1864).

*Sic; differs from the corresponding Chinese description.

**Aeschynanthus novogracilis W. T. Wang is probably superfluous by application of the International Code of Botanical Nomenclature as it is an avowed substitute for an illegitimate name. A. gracilis Hort. ex Hanst. is a nomen nudum only listed in synonymy.

Yunnan: Meng-tzu, fruit, Liu Sheng-o [Liu Tchen-ngo] 18915; P'ing-pien, 1700 m above sea level, on stones at the edge of a forest, fruit green, 15 October 1939, Wang Ch'i-wu 82510.

Distribution: This country in S Yunnan; Sikkim; Bhutan; NE India; Burma. First recorded from this country.

The two above described specimens in fruit agree with that drawn and described in Clarke's discussion of this species. This species' distinguishing characteristics are branches with dense patent pubescence, leaves small (1.5-3.4 cm long, 4-7 mm broad), lanceolate or oblong lanceolate, both sides with a complete dense pubescence. It is very close to A. levipes (see below), but the latter has leaves even smaller, narrowly lanceolate or elongate lanceolate, 1.3-2.6 cm long, 1-4.5 mm broad.

THE SMALL-LEAVED AESCHYNANTHUS -- A. levipes

Aeschynanthus levipes Clarke in DC. Monogr. Phan. 5: 28 (1883); in Hook. f. Fl. Brit. Ind. 4: 341 (1884); Prain in Rec. Bot. Surv. Ind. 1: 255 (1898); Marq. in Journ. Linn. Soc. Bot. 48: 214 (1929).

Yunnan: Kung-shan, Kao-li Kung-shan, 1200 m above sea level, on a tree trunk in a dense forest, 26 September 1938, Yü Teh-chün [Yü Te-tsun] 20454.

Distribution: This country in SE Tibet, NW Yunnan; N Burma, NE India. First recorded from Yunnan in this country.

THE DENTICULATE AESCHYNANTHUS -- A. denticuliger (illustration will appear in next issue)

Epiphytic small climbing half shrub. Stem slender, diameter ca. 1 mm, bearing roots, with somewhat dense pubescence, with long branches. Leaves opposite or in whorls of 3; the leaf blades elliptic, obovate elliptic or obovate, [veins?] slightly not opposite, 10-19 mm long, 6-10 mm broad, apices acute or acuminate, base broadly cuneate, margin at the middle and above sparsely denticulate, adaxial side glabrous or nearly glabrous, abaxial side with somewhat dense pubescence; the petioles 1.5 mm long, pubescent. Flowers axillary (?); the calyx campanu-

late, ca. 4 mm long, outside densely puberulent, 5 lobes divided to near the base, the lobes triangular lanceolate; the corolla yellow, funnelform, ca. 3.4 cm long, outside with somewhat dense puberulence, inside glabrous, tube ca. 2.6 cm long, becoming slender near the base, limb bilabiate, upper limb ca. 7 mm long, 2 lobed, lower lip ca. 9 mm long, of 3 deep lobes, the lobes oblong ovate; stamens 4, borne at near the middle of the corolla tube, elongated to the corolla mouth, glabrous, anthers coherent at the apices, narrowly oblong, 3 mm long; disc cupulate, glabrous; pistil glabrous.

This species is near A. novogracilis W. T. Wang, but this species can be easily distinguished by its having leaves elliptic or obovate elliptic, margin denticulate, and corolla yellow; A. novogracilis has leaves lanceolate or oblong lanceolate, margin entire and flowers red.

Aeschynanthus denticuliger W. T. Wang, sp. nov.
[Acta Phytotax. Sin. 13(2): 65, 1975]

Affinis A. novogracili W. T. Wang, sed foliis ellipticis vel obovato-ellipticis denticulatis, corolla flava facile differt.

Yunnan: Hsi-ch'ou, Fa-t'ou, 1200 m above sea level, in a dense forest, epiphytic on a 21.34 m tall Quercus tree, flower yellow, 12 December 1939, Wang Ch'i-wu 85615 (Holotypus!).

THE CLUSTER-FLOWERED AESCHYNANTHUS -- A. hookeri

Aeschynanthus hookeri Clarke in DC. Monogr. Phan. 5: 21 (1883); in Hook. f. Fl. Brit. Ind. 4: 338 (1884); Hara, Fl. East. Himal. 297 (1966); ibid. 2nd rep.: 121 (1971).

A. parasitica auct. non Wall.: Clarke, Comm. et Cyrt. Beng. t. 49 (1874).

Yunnan: Meng-hai, 1900 m above sea level, in a forest on a dried tree trunk, flowers of deep red, Wang Ch'i-wu 77347.

Distribution: This country, in S Yunnan; Sikkim. First recorded from this country.

The identifying characteristics of this species are flowers that grow near the tips of the plant, with an appearance much like an umbellate inflores-

cence, the flower's calyx has 5 shallow lobes, and at near the base of the seed are 2 hairs, and at the apex 1 hair. For the foregoing specimen we can only describe the flower, for we have not yet seen the seed. This species is fairly close to A. mimetes Burt, although in the flowers of the latter species the calyx has lobes elongate lanceolate, with the apices pointed, the corolla relatively large, ca. 4.8 cm long, nearly glabrous, while in this species the calyx lobes are broadly ovate, the apex rotund, the corolla relatively small, ca. 3 cm long, with a dense puberulence outside.

The genus Aeschynanthus has about 140 species, distributed from southeastern Tibet in this country, Sikkim, Bhutan, and from eastern India eastward to Indonesia. This country has about 23 species, distributed through southeastern Tibet, Yunnan, Szechuan (Omei is the northern limit of this genus), Kweichow, Kwangsi and Kwangtung, with many species in Yunnan. Below is a key based on the specimens of this genus collected by the Botanical Institute of the Academia Sinica in Peking.

1. The calyx of 5 shallow lobes from 1/4 to 1/3 the total length of the calyx; the leaves coriaceous, more or less 10 cm long, and glabrous. (S Yunnan).
 2. The calyx lobes broadly ovate, the apex rotund, with ciliate hairs; the corolla ca. 3 cm long, and outside densely puberulent THE CLUSTER-FLOWERED AESCHYNANTHUS -- A. hookeri Clarke
 2. Calyx glabrous, the lobes elongate lanceolate, the apex pointed; the corolla ca. 4.8 cm long, nearly glabrous THE LARGE-FLOWERED AESCHYNANTHUS -- A. mimetes Burt
1. The calyx of 5 lobes divided to past the middle or to the base.
 3. The calyx ca. 3 cm long, with 5 lobes divided to the base, the lobes elongate oblong, and the apex blunt; the corolla ca. 9 cm long; the leaves chartaceous, oblong, more or less 15 cm long, and glabrous. (Yunnan) THE CHINESE-BEAUTY AESCHYNANTHUS -- A. superbus Clarke

3. The calyx 1.5 cm or less long, the corolla 4 cm or less long.
4. Calyx 5-7 mm long, glabrous, lobes ovate, the apex rotund or nearly rotund; the leaves chartaceous, glabrous, and 4.5-13 cm long.
5. The leaves often oblong; the peduncles 0.8-3 cm long (Kwangtung, Kwangsi, Yunnan, Szechuan)
..... AESCHYNANTHUS -- A. acuminatus Wall.
5. The leaves often elliptic; the peduncles 6-15 cm long (Kwangtung in Hainan)
..... THE HAINAN
AESCHYNANTHUS -- A. moningeriae (Merr.) Chun
4. The calyx lobes oblong, linear, narrowly lanceolate, or subulate, the apex pointed or obtuse.
6. Dichasia pedunculate, with several flowers; the bracts purple-red, ovate or narrowly ovate, 1-2 cm long; the calices purple-red, and glabrous, with 5 lobes divided to the base, the lobes oblong or elongate oblong, the apex commonly obtuse; the leaves glabrous.
7. Leaves ovate or elliptic (SE Tibet, Yunnan) THE VISIBLE-BRACTED
AESCHYNANTHUS -- A. bracteatus Wall.
7. Leaves oblanceolate, narrowly oblanceolate or elongate oblanceolate.
8. Leaves elongate oblanceolate, 0.7-1.5 cm broad (SE Tibet, NW Yunnan)
..... THE LINEAR-LEAVED AESCHYNANTHUS -- A. linearifolius C. E. C. Fisch.
8. Leaves oblanceolate or narrowly oblanceolate, 2-2.8 cm broad (W Yunnan)
... THE OBLANCEOLATE AESCHYNANTHUS -- A. oblanceolatus (Anthony) C. E. C. Fisch.
6. The flowers borne in axillary clusters of 1-3 (only in A. tenuis are the inflorescences pedicellate); the bracts small, linear, or caducous; the calyx apparently not dark red, the lobes linear, elongate lanceolate or subulate.
9. The leaves (3.5-) 4 cm or more long, glabrous.

10. The leaf margin 1-2 toothed toward the apex (N Kwangtung)
 THE APICALLY-TOOTHED
 AESCHYNANTHUS -- A. apicidens Hance
10. The leaf margin entire.
11. The outside of the calyx puberulent.
12. The calyx has five lobes divided to the base, the lobe apex obtuse (W and SW Yunnan)
 The SEPARATED-CALYX AESCHY-
 NANTHUS -- A. chorisepalus Orr
12. The calyx has 5 deep lobes reaching to within 1-2.5 mm of the base, the lobe apex pointed.
13. The leaves ovate, the apex acuminate; the calyx 7.5-11 mm long (NW Yunnan) THE
 HAIRY-FLOWERED AESCHYNANTHUS
 -- A. lasianthus W. T. Wang
13. The leaves elliptic, the apex acute or somewhat obtuse; the calyx 4-6 mm long (S Yunnan) .
 THE SOUTH-
 YUNNAN AESCHYNANTHUS -- A.
austroyunnanensis W. T. Wang
11. The outside of the calyx glabrous.
14. The 5 lobes of the calyx divided to the base, the lobes linear, the apex obtuse, with a few marginal hairs.
15. The leaves coriaceous, commonly narrowly ovate, sometimes broadly lanceolate or lanceolate, 2.8-4 cm broad, the apex acuminate (W and SW Yunnan)
 .. The SEPARATED-CALYX AESCHY-
 NANTHUS -- A. chorisepalus Orr
15. The leaves chartaceous, narrowly oblong, 1.5 cm or less wide, the apex somewhat obtuse (NW Yunnan) THE NARROW-
 OBLONG-LEAVED AESCHYNANTHUS --
A. angustiolongus W. T. Wang

14. The lobes of the calyx are linear subulate or subulate, the apex pointed, glabrous.
16. The calyx has 5 deep lobes not divided to the base; outside of the corolla puberulent; leaves lanceolate, the apex acuminate (SE Yunnan) ...
 THE LAN-
 CEOLATE-LEAVED AESCHYNANTHUS
 -- A. lancilimbus W. T. Wang
16. The calyx has 5 lobes divided to the base; the corolla glabrous.
17. The leaves lanceolate, 5-7.5 cm long, the apex long acuminate or caudate and acuminate, the abaxial side is densely maculate with small light brown spots; single flowers arise from the axil, the pedicels ca. 1 cm long, without peduncle (SE Yunnan)
 THE LONG-ACUMINATE
 AESCHYNANTHUS -- A. acuminatissimus W. T. Wang
17. The leaves are ovate, lanceolate or elliptic lanceolate, 3-5.5 cm long, the apex caudate, the abaxial side without spots; the inflorescence of 1-2 flowers, with peduncles present, 3-4.3 (-5.8) cm long (NW Yunnan)
 THE
 CAUDATE-LEAVED AESCHYNANTHUS - A. tenuis Hand-Mazz.
9. The leaves 3 cm or less long.
18. The stem and branches, leaves, and the calyx glabrous, or sometimes the calyx lobes with short marginal hairs.

19. The leaves ovate or lanceolate, the apices caudate; inflorescences with peduncles 3-4.3 (-5.8) cm long (NW Yunnan) THE CAUDATE-LEAVED AESCHYNANTHUS -- A. tenuis Hand.-Mazz.
19. The leaf apex obtuse or rotund.
20. The leaves chartaceous, narrowly oblong; the calyx lobes with a few short marginal hairs (NW Yunnan) THE NARROW-OBLONG-LEAVED AESCHYNANTHUS -- A. angustiolongus W. T. Wang
20. The leaves coriaceous, elliptic, broadly elliptic or obovate; the calyx glabrous (SE Yunnan, Kwangsi) THE YELLOW POPLAR-LEAVED AESCHYNANTHUS -- A. buxifolius Hemsl.
18. The stem, branches, leaves and the outside of the calyx all covered with hairs.
21. The leaves elongate lanceolate or oblong lanceolate, margin entire; the calyx with 5 lobes divided to the base.
22. The leaves elongate lanceolate, 3 mm or less broad (SE Tibet, NW Yunnan) THE SMALL-LEAVED AESCHYNANTHUS - A. levipes Clarke
22. The leaves lanceolate or oblong lanceolate, 4-7 mm broad.
23. The leaves all opposite, lanceolate, the apex pointed (S Yunnan) THE SLENDER AESCHYNANTHUS -- A. novoqracilis W. T. Wang
23. The leaves at the stem apex nearly whorled, oblong lanceolate, the apex blunt (SW Yunnan) THE WHORLED-LEAVED AESCHYNANTHUS - A. andersonii Clarke
22. Leaves of some other shape.

24. The stem slender, and not erect; the leaves opposite or in whorls of 3, elliptic or obovate elliptic, the margin denticulate; calyx with 5 lobes divided to the base; corolla yellow (SE Yunnan) ...

..... THE DENTICULATE AESCHYNANTHUS

-- A. denticuliger W. T. Wang

24. The stem relatively stout, erect; the lower part of the stem with leaves opposite, the upper part with some leaves at the stem's apex nearly whorled, spatulate or oblong spatulate, the margin entire, however leaves on the lower stem obscurely denticulate; the corolla red.

25. The leaves spatulate or oblong spatulate; the 5 calyx lobes divided to just past the middle (SE Yunnan)
- THE SHORT AESCHYNANTHUS - A. humilis Hemsl.

25. A few of the leaves apparently spatulate, most oblong lanceolate; the 5 calyx lobes divided to the base (SW Yunnan)
- THE WHORLED-LEAVED AESCHYNANTHUS - A. andersonii Clarke

THE ROCK-HANGING GESNERIAD GENUS --

Lysionotus G. Don

THE KWANGSI LYSIONOTUS -- L. kwangsiensis (illustration will appear in next issue)

Small shrub, each part glabrous. Stems ca. 30 cm long, nearly terete, ca. 3 mm in diameter, smooth, lenticels sparse and elliptic. Leaves opposite; leaf blades coriaceous, elliptic ovate or elliptic, 6-10 cm long, 3.4-4.5 cm broad, apex with many short

tapered teeth, nearly obtuse, base slightly oblique, rotund or broadly cuneate, margin above the base denticulate, lateral veins 5-7 and opposite, obscure; petioles 0.9-1.5 cm long. Cymes axillary, of 1-2 flowers; the peduncles 1.5-4 cm long, quadrangular, very narrowly winged; the bracts narrowly elliptic, ca. 5 mm long, margin crenate*; pedicels 1.2-2 cm long; the calyx ca. 1 cm long, of 5 lobes divided to the base, the lobes linear lanceolate, ca. 1.2 mm broad; corolla light purple, ca. 4.5 cm long, tubular funnelform, limb bilabiate, upper lip ca. 6 mm long, with 2 shallow lobes, the lobes broadly ovate, lower lip 13 mm long, with 3 shallow lobes; stamens 2, included, filaments narrowly linear, coiled at middle, anthers coherent, nearly orbicular, ca. 2 mm in diameter, connectives with protuberance at the back; staminodia 2, narrowly linear, ca. 10 mm long; disk annular, margin with shallow lobes; pistils ca. 2.3 cm long.

This species is allied to L. hainanensis Merr. et Chun, but can be distinguished by the leaves that are opposite, elliptic ovate or elliptic, calyx 5-lobed divided to the base, the lobes linear lanceolate, while the leaves of the latter are borne in whorls of 3, oblong or narrowly elliptic, calyx with 5 deep lobes, but not divided to the base, the lobes narrowly triangular. It is also allied to the Visible-bracted Lysionotus** -- L. serratus D. Don, but its leaves are coriaceous, inflorescences with few flowers, bracts narrowly elliptic, denticulate,* the calyx lobes linear lanceolate, while the leaves of the latter are herbaceous, the inflorescences with relatively many flowers, the bracts broadly ovate, margin entire, the calyx lobes ovate or narrowly ovate.

Lysionotus kwangsiensis W. T. Wang, sp. nov.
[Acta Phytotax. Sin. 13(2): 68, 1975]

Affinis L. hainanensi Merr. et Chun, sed foliis oppositis latioribus elliptico-ovatis vel ellipticis, calyce ad basin in segmenta 5 lanceolato-linearibus diviso differt; a L. serrato D. Don foliis coriaceis, cyma pauciflora, bracteis anguste ellipticis crenulatis,* calycis segmentis lanceolato-linearibus recedit.

*Sic; differs from the corresponding Chinese/Latin description.

**Common name; see key.

Kwangsi: Jung-shui, Shan-fang, Pen-tung, Chiu-wan Mt., 1360 m above sea level, on rocks in a thin forest on a mountain top, corolla tube with light maroon sutures ? , 21 July 1958, Ch'en Shao-ch'ing 15021 (Holotypus!); same place, 1300 m above sea level, on a mountain top, in a dense forest, 26 July 1958, Ch'en Shao-ch'ing 15846.

THE VARIED-LEAVED LYSIONOTUS -- L. heterophyllus

Lysionotus heterophyllus Franch. in Bull. Mus. Hist. Nat. Paris 5: 249 (1889).

L. brachycarpus Rehd. in Sarg. Pl. Wils. 3: 387 (1916), syn. nov.

var. heterophyllus

Szechuan: Omei Mt., Yao Chung-wu 5296, Yang Kuang-hui 56639, 57425; O-pien, Liu Sheng-o [Liu Tchen-ngo] 12577, Yao Chung-wu 2789; T'ien-ch'uan, Erh-lang Mt., Hu Wen-kuang and Ho Chu 11634; Hung-ch'i, 2300 m above sea level, Hu Chia-ch'in et al. 1177, 1455; Nan-ch'uan, 1700-2600 m above sea level, P'ei Chien 7202, Ch'ü Chung-hsiang 1439, Hsiung Chi-hua and Chu Tzu-lin 92187, Li Kuo-feng 62921; unspecified locality, A. Henry 8997 (picture seen, L. brachycarpus Rehd. paratype).

Distribution: NE Yunnan, Szechuan.

The type of this species was collected by Delavay in northeast Yunnan, but we have not seen this specimen, however the aforementioned Szechuan specimens agree with the original description. L. brachycarpus Rehd. described later, is united here.

THE HAIRY-LEAVED LYSIONOTUS (variety)-- L. heterophyllus var. mollis

The small branches, petioles and abaxial sides of the leaf blades of this variety are all relatively densely puberulent. In typical L. heterophyllus, the small branches, petioles and leaf blades are glabrous.

var. mollis W. T. Wang, var. nov. [Acta Phytotax. Sin. 13(2): 69, 1975]

A var. heterophyllo ramulis petiolis et foliorum laminis subtus densiuscule pubescentibus differt.

Szechuan: Mt. Omei, Ch'u-tien, 1700 m above sea level, flower white, 26 July 1935, Tu Ta-hua 512 (Holotypus!).

The genus Lysionotus contains about 18 species, distributed from Nepal, and northern India to Malaysia, north to T'ai-ling in this country and the tropical and subtropical areas of Japan. This country has 12 species, of which I have specimens of 11 species in this collection, and these 11 species are given in the key below.

1. Branches small and glabrous.
2. Leaves all opposite.
3. Leaves herbaceous, many narrowly elliptic, to 17 cm long, to 5 cm broad, margin commonly toothed; inflorescences commonly of 3-9 flowers; bracts ovate or broadly ovate, to 8 mm broad, margin entire; calyx lobes narrowly ovate, 2.5-3.5 mm broad (Yunnan, SW Kweichow; N Vietnam to Nepal) THE TOOTHED-LEAVED LYSIONOTUS -- L. serratus D. Don
3. Leaves coriaceous; inflorescences of 1-2 flowers; bracts not ovate; calyx lobes linear, 1-1.1 mm broad.
4. Margin denticulate; bracts elliptic, ca. 5 mm long, ca. 3 mm broad, margin crenate (Kwangsi) THE KWANGSI LYSIONOTUS -- L. kwangsiensis W. T. Wang
4. Margin entire; bracts linear, ca. 1 mm long, ca. 0.5 mm broad, margin entire (Szechuan in O-pien, area from Omei to Kuan county) THE WEST-SZECHUAN LYSIONOTUS -- L. wilsonii Rehd.
2. Leaves in whorls of 3, or at the same time with some opposite, or in groups of 4-8 borne at the apex of the branch.
5. Calyx of 5 lobes divided slightly past the middle, the lobes triangular.
6. Leaves often narrowly elliptic, 4.5-9 cm long, 2.4-3.8 cm broad, margin shallowly undulate, or rarely with a few small sharp teeth, petioles 5-10 mm long (Hainan in Kwangtung, Kwangsi) THE HAINAN LYSIONOTUS -- L. hainanensis Merr. et Chun

6. Leaves ovate, elliptic, sometimes nearly oblong, 2-6.5 cm long, 1.2-3 cm broad, margin at the middle and above with coarse teeth, petioles 1.5-5 mm long (SE Yunnan) ..
 THE
 MENG-TZU LYSIONOTUS -- L. carnosus Hemsl.
5. Calyx of 5 lobes divided nearly to the base, the lobes linear lanceolate, but in L. pauciflorus sometimes triangular subulate.
7. Leaves oblong to linear, 1.2-5.5 cm long, 0.3-1.6 cm broad, margin from the middle and above with a few teeth (E Yunnan, Szechuan, Kweichow, Kwangsi, Kwangtung, Fukien, Taiwan, Chekiang, Kiangsi, Hunan, Hupei, S Shensi, Anhwei; N Vietnam, Japan) ..
 LYSIONOTUS (Rock-hanging Orchid) -- L. pauciflorus Maxim.
7. Leaves elliptic, narrowly elliptic or narrowly ovate.
8. Leaves in groups of 4-8 borne at the apex of the branch, 1.2-6.5 cm long, 0.7-2.5 cm broad, margins nearly entire or obscurely denticulate; inflorescences of 1-2 (-4) flowers; corolla tube funnel-form, ca. 1 cm thick (NE Yunnan, Szechuan) ..
 THE VARIED-LEAVED
 LYSIONOTUS -- L. heterophyllus Franch.
8. Leaves in whorls of 3 or at the same time opposite, 5.5-12 cm long, 2-5.5 cm broad, margin with many sharp teeth; inflorescences of 3-7 flowers; corolla tube cylindric, ca. 5 mm thick (NW Yunnan in the area from Fu-kung to Kung-shan) ..
 THE SHORT-PETIOLED
 LYSIONOTUS -- L. sessilifolius Hand.-Mazz.
1. Branches small and with an indument.
9. Leaves coriaceous; bracts elongate lanceolate, ca. 0.5 mm broad.
10. Small branches with patent hairs; leaves narrowly elliptic or narrowly ovate, 2-7 cm long, 1-2.4 cm broad, margin obscurely denticulate, abaxial side puberulent (Szechuan at Omei Mt.) ..
 THE HAIRY-LEAVED LYSIONOTUS
 -- L. heterophyllus var. mollis W. T. Wang

10. Small branches with short appressed hairs; leaves oblong to linear, 1.2-5.5 cm long, 0.3-1.6 cm broad, margin dentate at the middle and above, glabrous (distribution as above)
 LYSIONOTUS -- L. pauciflorus Maxim.

9. Leaves herbaceous, margin toothed.

11. Leaves relatively large, narrowly elliptic or elliptic ovate, to 8 cm long, to 3.2 cm broad, margin both sides with 10 small teeth; bracts subulate, ca. 0.6 mm broad; calyx lobes linear lanceolate (W Yunnan)
 THE WEST-YUNNAN LYSIONOTUS -- L. forrestii W. W. Sm.

11. Leaves relatively small, narrowly ovate, 1-2.5 cm long, 4-9 mm broad, margin both sides with 2-4 small teeth.

12. Small branches with appressed hairs; inflorescences of 1 flower; bracts subulate lanceolate, 1-1.5 cm long, not 1 mm broad; calyx lobes linear lanceolate; corolla glabrous (NW Yunnan in the area from Wei-hsi to Kung-shan)
 THE SMALL-LEAVED LYSIONOTUS -- L. sulphureus Hand.-Mazz.

12. Small branches with dense and patent puberulence; inflorescences of 2 flowers; bracts broadly ovate, ca. 4 mm long, ca. 3.5 mm broad; calyx lobes narrowly ovate; corolla puberulent (NW Yunnan in the area of Kung-shan; N Burma) THE HAIRY-BRANCHED LYSIONOTUS -- L. wardii W. W. Sm.

(Continued)